Amendments to the Claims:

This listing of claims will replace all prior versions and listings, of claims in the application:

List of Claims:

1. (Currently Amended) A computerized method for calculating [[a]] at least one potential optimum yield for [[an]] at least one space, ~~entity, for a set of demands including both transient demands and group demands~~ comprising:

obtaining at least one set of past demands including both past transient demands and past group demands for the at least one configurable space, the at least one space comprising transient individual space, group individual space, and group function space; and

~~setting yield formula for~~ calculating, by a processor, [[a]] at least one potential optimum yield that includes both at least one transient yield from the transient individual space, and at least one group yield from the group individual space and the group function space, wherein the calculating comprises:

determining constraints related to the at least one space ~~related to the yield formula~~;

determining bounds related to the at least one space ~~related to the yield formula~~;

identifying which past demands for the at least one space should [[be]] have been accepted in order to optimize the at least one potential optimum yield, subject to the constraints and the bounds; and

determining the at least one potential optimum yield utilizing the at least one set of past demands ~~identified in the identifying step~~.

2. (Currently Amended) The method of claim 1, wherein the identifying [[step]] is performed using at least one mixed integer linear programming technique ~~techniques~~.

3. (Currently Amended) The method of claim 1, wherein the at least one potential optimum yield comprises revenue.

4. (Currently Amended) The method of claim 1, wherein the at least one potential optimum yield comprises profit.

5. (Currently Amended) The method of claim 1, further comprising assigning [[a]] at least one small value as a cost of [[a]] at least one transient upgrade, and including the at least one small value in the at least one transient yield.

6. (Currently Amended) The method of claim 1, further comprising comparing at least one actual total yield to the at least one potential optimum yield.

7. (Currently Amended) The method of claim 1, further comprising:

determining at least one upper bound transient constraint, the at least one upper bound transient constraint ensuring that more transient individual space than available is not assigned.

8. (Currently Amended) The method of claim 7, wherein the at least one upper bound transient constraint is $x.AD(i).LS(i).RC(i).RT(i) \leq N(i)$, and wherein i is a transient demand, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, RT is a room type, and N(i) is a number of sleeping rooms associated with demand i.

9. (Currently Amended) The method of claim 5, further comprising:

determining [[a]] at least one transient upgrade constraint that ensures that [[an]] at least one assigned transient individual space level is at least as high as [[a]] at least one requested transient individual space [[level]].

10. (Currently Amended) The method of claim 9, wherein the at least one transient upgrade constraint is:

$$\sum_{ART \geq RT(i)} y.AD(i).LS(i).RC(i).RT(i).ART \geq x.AD(i).LS(i).RC(i).RT(i).$$

and wherein i is a transient demand, y.AD(i).LS(i).RC(i).RT(i).ART are room allocation variables that represent a number of rooms of allocated room type ART that are allocated to each transient demand i, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

11. (Currently Amended) The method of claim 1, further comprising:

determining [[a]] at least one transient yield constraint, incorporating transient individual space yield information.

12 (Currently Amended) The method of claim 11, wherein the at least one transient yield constraint is

$$\sum_{i} Y(i)x.AD(i).LS(i).RC(i).RT(i)$$

wherein Y(i) is the yield associated with transient demand i, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

13. (Currently Amended) The method of claim 5, further comprising:

determining [[a]] at least one total transient upgrade constraint that comprises [[a]] at least one total number of individual spaces where [[an]] at least one upgrade was assigned.

14. (Currently Amended) The method of claim 13, wherein the at least one total transient upgrade constraint is

$$\sum_{i} \sum_{ART>RT(i)} Y(i)x.AD(i).LS(i).RC(i).RT(i)$$

wherein Y(i) is a yield associated with transient demand i, xAD(i).LS(i).RC(i).RT(i) is an integer value representing a number of demands i that are accepted, AD is an arrival date, LS is a length of stay, RC is a rate category, RT is a room type, and ART is an allocated room type.

15. (Currently Amended) The method of claim 1, further comprising:

determining [[a]] at least one space protection constraint that ensures that more individual space and function space than available is not assigned.

16. (Currently Amended) The method of claim 15, wherein the at least one space protection constraint is

$$\sum_{i|\ AD(i)\le SD(i),AD(i)+LS(i)\ge SD,ART=RT} y.AD(i).LS(i).RC(i).RT(i).ART + \sum_{OID} \sum_{rt|\ ART(rt)=RT} yOpp.OID.SD.RT.ART(RT)$$

and wherein i is a transient demand, y.AD(i).LS(i).RC(i).RT(i).ART are room allocation variables that represent a number of rooms of allocated room type ART that are allocated to each transient demand i, yOpp.OID.SD.RT.ART(RT) represents a number of rooms of allocated room type ART that are allocated to fill each accepted group demand OID, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

17. (Currently Amended) The method of claim 5, further comprising:

determining [[a]] at least one group space opportunity constraint that ensures that [[a]] at least one group opportunity is fully satisfied before being accepted.

18. (Currently Amended) The method of claim 17, wherein the at least one group space opportunity constraint is

$$\sum_{ART \ge RT} yOpp.OID.SD.RT.ART(RT) \ge N(OID,DS,RT)wOpp.OID$$

wherein yOpp.OID.SD.RT.ART(RT) represents a number of rooms of allocated room type ART that are allocated to fill each accepted group demand OID, N(OID,DS,RT) represents a number of rooms associated with accepted group demand OID, wOpp.OID are a number of rooms allocated to fill each accepted group demand OID, DS is a stay date, AD is an arrival date, LS is a length of stay, RC is a rate category, and RT is a room type.

19. (Currently Amended) The method of claim 1, further comprising:

determining [[a]] at least one group yield constraint that incorporates individual space cost information and function space cost information for [[a]] at least one group opportunity.

20. (Currently Amended) The method of claim 19, wherein the at least one group yield constraint is

$$\sum_{OID} Y(OID)wOpp.OID$$

wherein Y(OID) is the yield associated with the group demand OID, and wOpp.OID are a number of rooms allocated to fill each accepted group demand OID.

21. (Currently Amended) The method of claim 1, further comprising:

determining [[a]] at least one function space constraint that ensures that [[a]] at least one particular function space is not used more than once during a given time period.

22. (Currently Amended) The method of claim 21, wherein the at least one function space constraint is

$$\sum_{SS \in C(SS)} sscfu.DP.SS \leq 1$$

wherein sscfu.DP.SS represents whether indivisible specific space (SS) is being used during a specific day part (DP), and C(SS) represents a set of all spaces that conflict with space SS.

23. (Currently Amended) The method of claim 1, further comprising:

determining [[an]] at least one assigned function space constraint that ensures that [[an]] at least one assigned function space is at least as big as [[a]] at least one requested function space.

24. (Currently Amended) The method of claim 23, wherein the at least one assigned function space constraint is

$$tsa.DP.TST = \sum_{SS \in C(TST)} sscfu.DP.SS$$

wherein tsa.DP.TST represents a target space available of a given target space type, sscfu.DP.SS represents whether indivisible specific space (SS) is being used during a specific day part (DP), and C(TST) represents a set of all indivisible specific spaces that produce target space type TST.

25. (Currently Amended) The method of claim 5, further comprising:

determining [[an]] at least one upgrade function space constraint that ensures that transient upgrades and group upgrades are not given when not necessary.

26. (Currently Amended) The method of claim 25, wherein the at least one upgrade function space constraint is

$$\sum_{OID} N(OID, DP, TST)wOpp.OID + \sum_{RTST|ATST=TST} upg.DP.RTST.ATST - \sum_{ATST|RTST=TST} upg.DP.RTST.ATST \leq tsa.DP.TST.$$

wherein N(OID, DP, TST) represents a number of target spaces of target space type TST demanded by opportunity ID OID during day part DP, wOpp.OID represents whether an opportunity is accepted or turned down, upg.DP.RTST.ATST represents an upgrade from a requested target space type to an assigned target space type, and tsa.DP.TST represents target space available for a given target space type.

27. (Currently Amended) The method of claim 5, wherein the bounds comprise ~~at least one step selected from the group consisting of:~~

setting the amount of accepted transient individual spaces to greater than or equal to 0;

setting the amount of assigned transient individual spaces to greater than or equal to 0;

setting the amount of assigned group individual spaces and group function spaces to greater than or equal to 0;

setting the value of group opportunities to greater than or equal to 0, and less than or equal to 1;

setting the value of group function space greater than or equal to 0, and less than or equal to 1; [[and]] or

setting the value of space protection to greater than or equal to 0, and less than or equal to the amount of individual space available; or

any combination thereof.

28. (Currently Amended) A computer system for calculating a potential optimum yield for an entity for a set of demands including both transient demands and group demands comprising:

a processor;

a memory for storing a set of demands,

the memory connected to the processor;

wherein the processor is configured for: ~~to perform the steps of~~

obtaining at least one set of past demands including both past transient demands and past group demands for at least one configurable space, the at least one space comprising transient individual space, group individual space, and group function space; and

calculating, by a processor, at least one potential optimum yield that includes both at least one transient yield from the transient individual space, and at least one group yield from the group individual space and the group function space, wherein the calculating comprises:

determining constraints related to the at least one space;

determining bounds related to the at least one space;

identifying which past demands for the at least one space should have been accepted in order to optimize the at least one potential optimum yield, subject to the constraints and the bounds; and

determining the at least one potential optimum yield utilizing the at least one set of past demands.

~~setting a yield formula for calculating a yield that includes both transient yield from transient individual space and group yield from group individual space and group function space;~~

~~determining constraints related to the yield formula;~~

~~determining bounds related to the yield formula;~~

~~identifying which demands should be accepted in order to maximize the yield, subject to the constraints and the bounds; and~~

~~determining the potential optimum yield utilizing the demands identified in the identifying step.~~

29. (Cancelled)

30. (New) The method of Claim 1, further comprising determining at least one configuration of the at least one space that satisfies the at least one set of past demands.

31. (New) The method of Claim 30, wherein the at least one group function space is configured.